## Message

From: Newhouse, Kathleen [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=5F019C8179304045ACD61BC05B571FB0-NEWHOUSE, KATHLEEN]

**Sent**: 7/6/2016 6:20:54 PM

To: Phillips, Linda [phillips.linda@epa.gov]
CC: Hogan, Karen [hogan.karen@epa.gov]

Subject: FW: Estimating dermal absorption from soils - draft document to EPA

Attachments: EPA Soil Report - Draft25Jun2016.doc; EPA-Soil-Document-Proposal-And-Contract.pdf

Hi Linda, do you have any familiarity with this report?

I'd like to touch base with you about your impressions from the meeting when you are available.

Hope all is well.

## -Kathleen

From: Annette Bunge [mailto:abunge@mines.edu]

Sent: Tuesday, July 05, 2016 1:10 PM

To: Newhouse, Kathleen < Newhouse. Kathleen@epa.gov>

Subject: Estimating dermal absorption from soils - draft document to EPA

Dear Kathleen,

I have attached a copy of the draft document I prepared for EPA in 2008 describing an approach for estimating dermal absorption from contaminated soils. I have also attached the original proposal to EPA to prepare the document and the contract from EPA in case you would like to track it down in the EPA archives.

To the best of my memory, I think the plan was to revise the document based on comments from John Schaum (or perhaps others, but delivered through John Schaum). There were a couple of no-cost extensions I think to keep the contract open until these comments were received and revisions completed. (I probably have this information in old emails, which I do have. However, I have changed email clients since then, and my current email client is unable to read these old email messages.)

I have from time-to-time worked on the draft document, most recently as I prepared for the recent BaP IRIS document discussion. The version I have attached to this email includes comments that I and Sandrine Deglin (the PhD student whose data is shown) have added over the intervening 8 years.

The document needs some updating. It also needs a more thorough summary of prior experimental results that are relevant. This would include results from Spalt et al. 2009 and from the brief review of BaP dermal absorption data in the following recently published paper:

Ruby, MV, Lowney, YW, Bunge, AL, Roberts, SM, Gomez-Eyles, JL, Ghosh, U, Kissel, JC, Tomlinson, P and Menzie, C (2016). Oral bioavailability, bioaccessibility, and dermal absorption of pahs from soil—state of the science. *Environmental Science & Technology*, 50:2151-2164.

It would probably also include results from the comprehensive review of BaP dermal absorption data that I have worked on for 5 years (and hope to submit before the end of this year!!!).

I don't know if any of these will prove useful to you or not.

Let me know if you have questions or there is any other information I could provide to you that would be helpful.

With kind regards, Annette

Annette L. Bunge, Ph.D. Chemical & Biological Engineering Department Colorado School of Mines 1500 Illinois Street Golden, CO 80401 USA [1]-303-273-3722 Mobile Ex. 6 Personal Privacy (PP) Fax: [1]-800-753-6875

abunge@mines.edu